

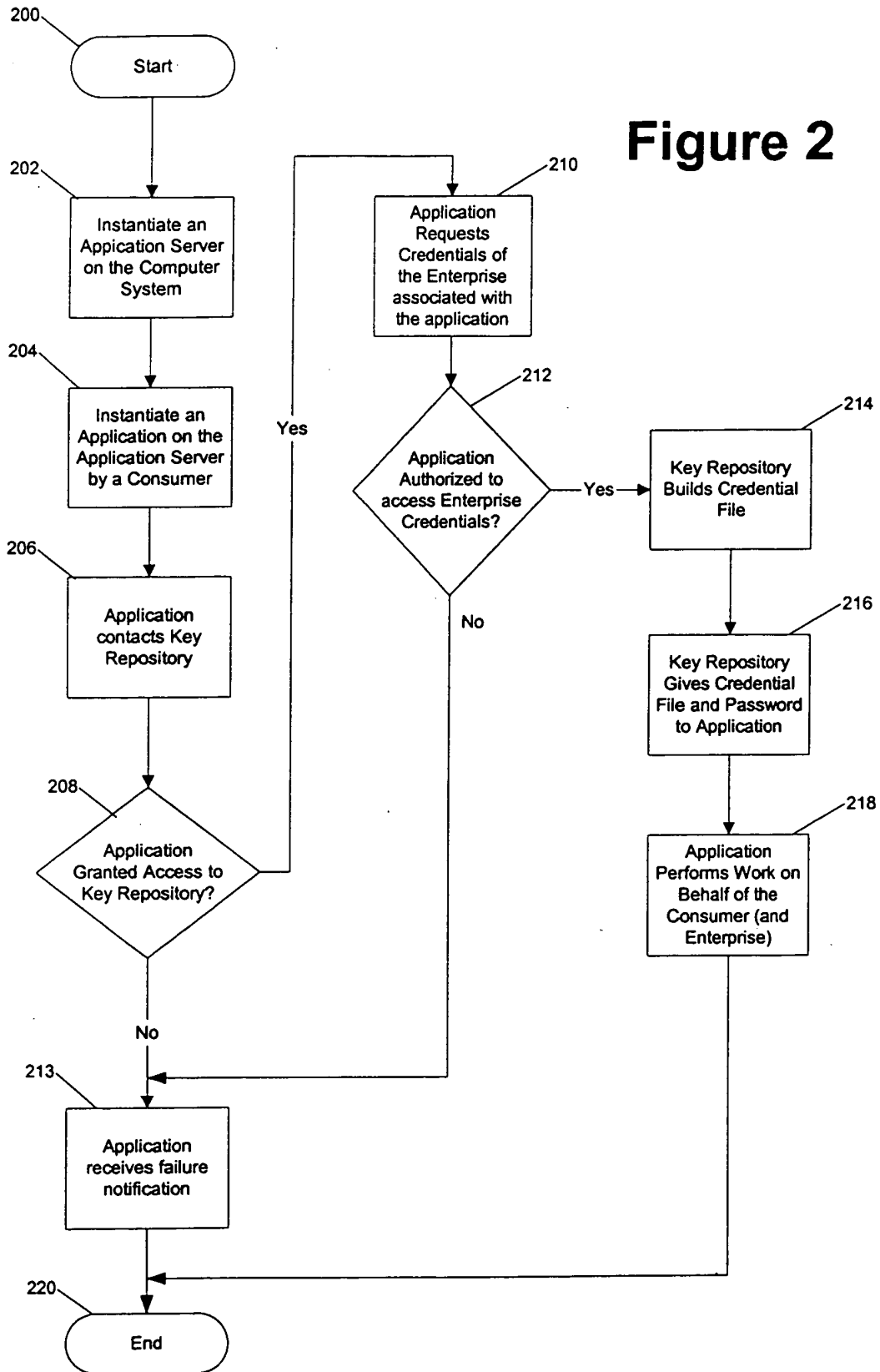
The diagram illustrates a Key Management System (KMS) architecture, labeled 10. The system is composed of several interconnected components:

- Key Repository (20):** A central component that stores and manages cryptographic keys. It contains two sub-components: a **Protection Key (24)** and an **Integrity Key (22)**.
- Database (30):** A storage component that holds **Enterprise Credentials (32)**. It is connected to the Key Repository (20) via a bidirectional arrow.
- Application(s) (40):** A component that interacts with the Key Repository (20) and the Consumer(s) (50). It is connected to the Key Repository (20) via a bidirectional arrow and to the Consumer(s) (50) via a bidirectional arrow.
- Enterprise (31):** An external entity that interacts with the Database (30) and the Application(s) (40). It is connected to the Database (30) via a bidirectional arrow and to the Application(s) (40) via a bidirectional arrow.
- Consumer(s) (50):** An external entity that interacts with the Application(s) (40). It is connected to the Application(s) (40) via a bidirectional arrow.
- Gateway (60):** A component that acts as a bridge between the Key Repository (20) and the Certification Authority (70). It is connected to the Key Repository (20) via a bidirectional arrow and to the Certification Authority (70) via a bidirectional arrow.
- Certification Authority (70):** An external entity that provides certification services to the Key Repository (20) through the Gateway (60).

The diagram shows the flow of data and control between these components, highlighting the role of the Key Repository (20) in managing cryptographic keys and the interaction with external entities like the Enterprise (31) and Consumer(s) (50).

Figure 1

Figure 2



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graph TD
    300([Start]) --> 302[/Provide the name of the Database/]
    302 --> 304[/Provide the name and password for one operator/]
    304 --> 306[/Provide the name and password for one owner/]
    306 --> 308[/Provide the name and password for a second owner/]
    308 --> 310[Key Repository invents an Integrity Key]
    310 --> 312[Key Repository invents a Protection Key]
    312 --> 314[Activating the Key Repository by the operator and at least one Owner who supply their identity and password]
    314 --> 316([End])
  
```

Figure

Figure 3

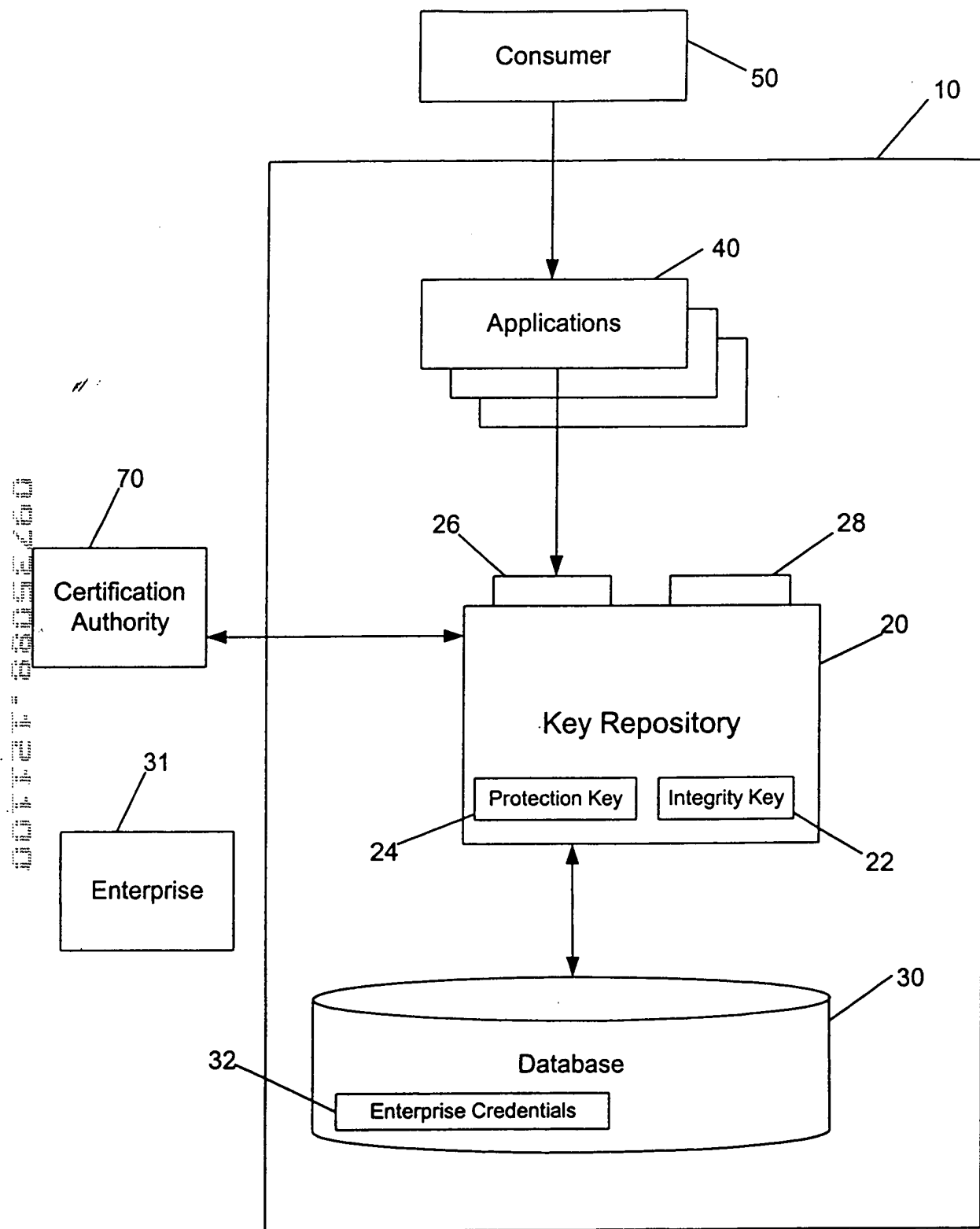


Figure 4

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graph TD
    Consumer[Consumer 50] --> Applications[Applications 40]
    Applications --> LocalAgent[Local Agent or Key Repository 21]
    LocalAgent --> KeyRepository[Key Repository 20]
    KeyRepository <--> Database[(Database 30)]
    Database --> EnterpriseCredentials[Enterprise Credentials 32]
    KeyRepository <--> CA[Certification Authority 70]
    Enterprise[Enterprise 31]
    
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Figure 5

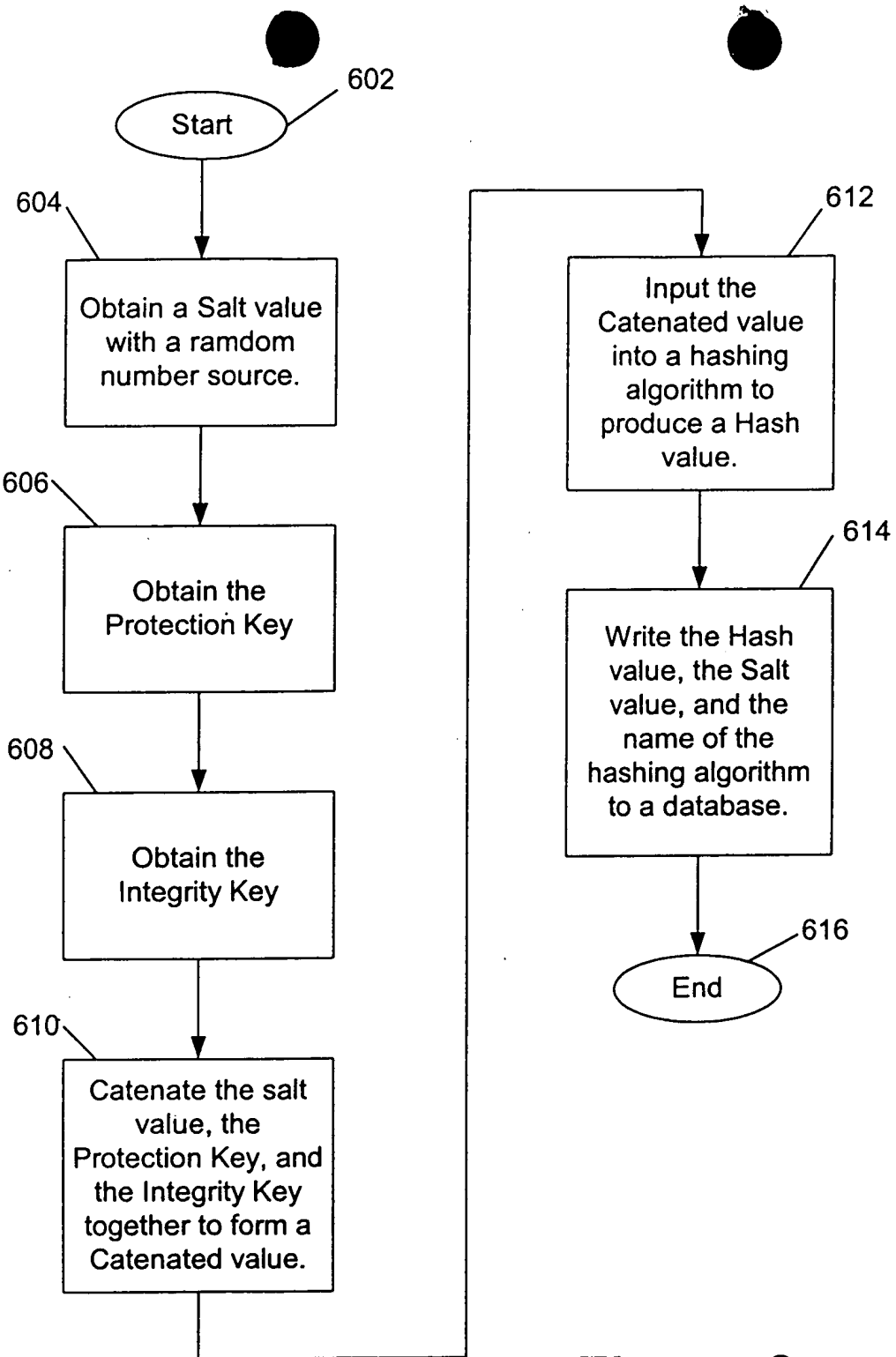


Figure 6